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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,354	12/28/2001	Shamik Shah	SAMS01-00164	2288

7590 06/06/2005  
Docket Clerk  
P.O. Box 800889  
Dallas, TX 75380

EXAMINER

PEREZ, ANGELICA

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/035,354

Applicant(s)

SHAH ET AL.

Examiner

Perez M. Angelica

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Claim Rejections - 35 USC § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-11, 14-20 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthi (Krishnamurthi, Rajeev; US Patent No.: 6,157,828 A) in view of Jung (Jung, Hyun-Sook; US Patent No.: 6,001,052 A).

Regarding claims 1, 5, 9 and 18, Krishnamurthi teaches of a method (abstract), a mobile switching center (figure 1, item 10; column 3, lines 49-53), a base station serving a mobile station (figure 1, items 12 and 16; column 3, lines 56-58) for use in a wireless communications system (column 3, lines 46-48; e.g., "cellular system") comprising: a controller which (column 3, lines 56-58; where the controller perform the "controlling switching functions"), in response to receiving from a base station serving the mobile station a clear request triggered by the mobile station terminating call connections while a call involving the mobile station is holding following a call waiting notification to the mobile station (column 4, lines 64-67, column 5, line 1-3 and 48-67 and column 6, lines 1-4), transmits a message to the base station serving the mobile station to maintain resource allocations designated for the mobile station and alert the mobile station of the holding call (column 5, lines 51-61).

Krishnamurthi does not specifically teach where the clear request is triggered by the mobile station terminating the call.

In related art, concerning a method for handling call hold service for use in a CDMA switching system, Jung teaches where the clear request is triggered by the mobile station terminating the call (column 4, lines 24-34; where as known in the art, the MS requires to communicate to the BS the clear message and the BS passes it onto the MSC).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Shah's mobile switching center, method and system with Jung's clear request triggered by the mobile station terminating the call in order to subsequently connect the first party to a third party, as taught by Jung.

Regarding claims 2, 6, 10 and 19, Krishnamurthi teaches all the limitations according to claims 1, 5, 9 and 18. In addition, Krishnamurthi teaches where the message is a clear reject message defined to prompt maintenance of the resource allocations designated for the mobile station and transmission of an alert to the mobile station of the holding call (column 5, lines 51-67 and column 6, lines 1-10; where the prevention of the release of the traffic channel is triggered by a clear reject message). Regarding claims 3, 7, 11 and 20, Krishnamurthi in view of Jung teaches all the limitations according to claims 1, 5, 9 and 18. Krishnamurthi further teaches where the message is a clear command message with a cause value defined to prompt maintenance of the resource allocations designated for the mobile station and

transmission of an alert to the mobile station of the holding call (column 5, lines 41-61; e.g., "release message" corresponding to a "clear command message").

Regarding claims 4 and 8, Krishnamurthi in view of Jung teaches all the limitations according to claims 1 and 5. In addition, Krishnamurthi teaches where, after transmitting the message, the controller awaits a connect message indicating that the mobile station has initiated connection to the holding call (column 5, lines 58-65; where the MSC waits for the MS response entered by the subscriber).

Regarding claim 14, Krishnamurthi in view of Jung teaches all the limitations according to claim 9. In addition, Krishnamurthi teaches where the base station, upon receiving the message, transmits an alert with information to the mobile station to alert the mobile station of the holding call (column 5, lines 40-44; where the alert is a "ring" tone).

Regarding claim 16, Krishnamurthi in view of Jung teaches all the limitations according to claim 14. Krishnamurthi also teaches where the base station, after transmitting the alert with information to the mobile station, awaits an acknowledgment of the alert with information from the mobile station (column 5, lines 61-65; where the subscriber answer, acknowledgement, is sent to the BS).

Regarding claim 15 and 22, Krishnamurthi in view of Jung teaches all the limitations according to claims 14 and 18. In addition, Krishnamurthi teaches where the base station, in transmitting the alert with information to the mobile station, causes a ring tone to sound at the mobile station (column 5, lines 40-44; where the alert is a "ring" tone).

Regarding claims 17 and 23, Krishnamurthi in view of Jung teaches all the limitations according to claims 14 and 18. Krishnamurthi further teaches where the base station, after transmitting the alert with information to the mobile station, awaits a connect order from the mobile station requesting connection to the holding call and, upon receiving the connect order, transmits a connect message to the mobile switching center (column 5, lines 61-65; where the subscriber answer sent to the BS is subsequently directed to the MSC).

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthi in view of in view of Jung, and further in view of Lekven (Lekven et.al., US Patent No.: 5,884,196 A).

Regarding claim 12, Krishnamurthi in view of Jung teaches all the limitations according to claim 9.

Krishnamurthi in view of Jung does not teach where a timer having a default value of 1.5 seconds is started by the clear request and stopped by the message. In related art concerning preserving power of a remote unit, Lekven teaches where a timer having a default value of 1.5 seconds is started by the clear request and stopped by the message (column 11, lines 35-40; where 1.5 seconds is a standard time delay for a transmission message).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Krishnamurthi in view of Jung base station serving a terminal call communication with Lekven's 1.5 second default value in order to allow the message to communicate the information before the clear request is executed.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthi in view of Jung, and further in view of Shishino (Shishino, Shinishi; US Patent No.: 6,108,563 A).

Regarding claim 13, Krishnamurthi in view of Jung teaches all the limitations according to claim 9.

Krishnamurthi in view of Jung does not teach where a timer having a default value of 30 seconds is started by the message and stopped by a connect message indicating that the mobile station has initiated connection to the holding call.

In related art concerning a communication control apparatus, Shishino teaches where a timer having a default value of 30 seconds is started by the message and stopped by a connect message indicating that the mobile station has initiated connection to the holding call (column 9, lines 50-53; where an allocated time for reconnection is granted before disconnection occurs).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Krishnamurthi in view of Jung base station serving a terminal call communication with Shishino's default value in order to have enough time for a subscriber to react to the warning.

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthi in view of Jung, further in view of Lekven, and further in view of Shishino. Regarding claim 21, Krishnamurthi in view of Jung teaches all the limitations according to claim 18.

Krishnamurthi in view of Jung does not teach of starting a timer for the base station having a default value of 1.5 seconds in response to transmitting the clear request; stopping the timer for the base station in response to receiving the message; starting a timer for the mobile switching center having a default value of 30 seconds in response to transmitting the message; and stopping the timer for the mobile switching center in response to receiving a connect message indicating that the mobile station has initiated connection to the holding call.

Lekven teaches where a timer having a default value of 1.5 seconds is started by the clear request and stopped by the message (column 11, lines 35-40; where 1.5 seconds is a standard time delay for a transmission message).

Shishino further teaches where a timer having a default value of 30 seconds is started by the message and stopped by a connect message indicating that the mobile station has initiated connection to the holding call (column 9, lines 50-53; where an allocated time for reconnection is granted before disconnection occurs).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Krishnamurthi in view of Jung base station serving a terminal call communication with Lekven's and Shishino's default values in order to allow a determined maximum waiting time for a response.



**Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 703-305-8724. The examiner can normally be reached on 7:15 a.m. - 3:55 p.m., Monday -Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either the PAIR or Public PAIR. Status information for unpublished applications is available through the Private PAIR only. For more information about the pair system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.

  
Angelica Perez (Examiner)

  
NAY MAUNG  
SUPERVISORY PATENT EXAMINER

Art Unit 2684

May 12, 2004